RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/579,111 _____
Source: _____ IFWP _____
Date Processed by STIC: _____ 05/23/2006 _____

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IFWP

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PATENT APPLICATION: US/10/579,111   TIME: 14:26:08

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     4 <110> APPLICANT: Bryan, Janine T.
     5        Brownlow, Micelle K.
     6        Schultz, Loren D.
     7        Wang, Xin-Min
     8        Jansen, Kathrin U.
    10 <120> TITLE OF INVENTION: OPTIMIZED EXPRESSION OF HPV 58 L1 IN
    11        YEAST
    13 <130> FILE REFERENCE: 21561P
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/579,111
C--> 15 <141> CURRENT FILING DATE: 2006-05-11
    15 <150> PRIOR APPLICATION NUMBER: PCT/US2004/037372
    16 <151> PRIOR FILING DATE: 2004-11-10
    18 <150> PRIOR APPLICATION NUMBER: 60/519,211
    19 <151> PRIOR FILING DATE: 2003-11-12
    21 <160> NUMBER OF SEQ ID NOS: 10
    23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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    27 <212> TYPE: DNA
    28 <213> ORGANISM: Artificial Sequence
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    31 <223> OTHER INFORMATION: HPV58 L1-R
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    36 agattgttgg ctgttggtaa cccatacttc tccatcaagt ctccaaacaa caacaagaag 180
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    38 ccaaacaagt tcggtttccc agacacttcc ttctacaacc cagacactca aagattggtc 300
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    41 ggttctgaca acagagaatg tttgtccatg gactacaagc aaacccaatt gtgtttgatc 480
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70 Ile Tyr Tyr Tyr Ala Gly Ser Ser Arg Leu Leu Ala Val Gly Asn Pro
71         35                  40                  45
72 Tyr Phe Ser Ile Lys Ser Pro Asn Asn Asn Lys Lys Val Leu Val Pro
73     50                  55                  60
74 Lys Val Ser Gly Leu Gln Tyr Arg Val Phe Arg Val Arg Leu Pro Asp
75 65                  70                  75                  80
76 Pro Asn Lys Phe Gly Phe Pro Asp Thr Ser Phe Tyr Asn Pro Asp Thr
77             85                  90                  95
78 Gln Arg Leu Val Trp Ala Cys Val Gly Leu Glu Ile Gly Arg Gly Gln
79             100                 105                 110
80 Pro Leu Gly Val Gly Val Ser Gly His Pro Tyr Phe Asn Lys Phe Asp
81         115                 120                 125
82 Asp Thr Glu Thr Ser Asn Arg Tyr Pro Ala Gln Pro Gly Ser Asp Asn
83     130                 135                 140
84 Arg Glu Cys Leu Ser Met Asp Tyr Lys Gln Thr Gln Leu Cys Leu Ile
85 145                 150                 155                 160
86 Gly Cys Lys Pro Pro Thr Gly Glu His Trp Gly Lys Gly Val Ala Cys
87             165                 170                 175
88 Asn Asn Asn Ala Ala Ala Thr Asp Cys Pro Pro Leu Glu Leu Phe Asn
89             180                 185                 190
90 Ser Ile Ile Glu Asp Gly Asp Met Val Asp Thr Gly Phe Gly Cys Met
91         195                 200                 205
92 Asp Phe Gly Thr Leu Gln Ala Asn Lys Ser Asp Val Pro Ile Asp Ile
93     210                 215                 220
94 Cys Asn Ser Thr Cys Lys Tyr Pro Asp Tyr Leu Lys Met Ala Ser Glu
95 225                 230                 235                 240
96 Pro Tyr Gly Asp Ser Leu Phe Phe Phe Leu Arg Arg Glu Gln Met Phe
97             245                 250                 255
98 Val Arg His Phe Phe Asn Arg Ala Gly Lys Leu Gly Glu Ala Val Pro
99             260                 265                 270
100 Asp Asp Leu Tyr Ile Lys Gly Ser Gly Asn Thr Ala Val Ile Gln Ser
101             275                 280                 285
102 Ser Ala Phe Phe Pro Thr Pro Ser Gly Ser Met Val Thr Ser Glu Ser
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104 Gln Leu Phe Asn Lys Pro Tyr Trp Leu Gln Arg Ala Gln Gly His Asn
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106 Asn Gly Ile Cys Trp Gly Asn Gln Leu Phe Val Thr Val Val Asp Thr
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108 Thr Arg Ser Thr Asn Met Thr Leu Cys Thr Glu Val Thr Lys Glu Gly
109                    340               345                  350
110 Thr Tyr Lys Asn Asp Asn Phe Lys Glu Tyr Val Arg His Val Glu Glu
111          355               360                  365
112 Tyr Asp Leu Gln Phe Val Phe Gln Leu Cys Lys Ile Thr Leu Thr Ala
113      370               375                  380
114 Glu Ile Met Thr Tyr Ile His Thr Met Asp Ser Asn Ile Leu Glu Asp
115 385               390                  395                  400
116 Trp Gln Phe Gly Leu Thr Pro Pro Pro Ser Ala Ser Leu Gln Asp Thr
117                    405               410                  415
118 Tyr Arg Phe Val Thr Ser Gln Ala Ile Thr Cys Gln Lys Thr Ala Pro
119          420               425                  430
120 Pro Lys Glu Lys Glu Asp Pro Leu Asn Lys Tyr Thr Phe Trp Glu Val
121          435               440                  445
122 Asn Leu Lys Glu Lys Phe Ser Ala Asp Leu Asp Gln Phe Pro Leu Gly
123      450               455                  460
124 Arg Lys Phe Leu Leu Gln Ser Gly Leu Lys Ala Lys Pro Arg Leu Lys
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140 agactttgg ctgttggcaa tccatatttt tccatcaaaa gtcccaataa caataaaaaa 180
141 gtattagttc ccaaggtatc aggcttacag tatagggtct ttagggtgcg tttacctgat 240
142 cccaataaat ttggttttcc tgatacatct ttttataacc ctgatacaca acgtttggtc 300
143 tgggcatgtg taggccttga aataggtagg ggacagccat tgggtgttgg cgtaagtggt 360
144 catccttatt tcaataaatt tgatgacact gaaaccagta acagatatcc cgcacagcca 420
145 gggtctgata acagggaatg cttatctatg gattataaac aaacacaatt atgtttaatt 480
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147 gctgctactg attgtcctcc attggaactt tttaattcta ttattgagga tggtgacatg 600
148 gtagatacag ggtttggatg catggacttt ggtacattgc aggctaataa aagtgatgtg 660
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155 aaatatgacat tatgcactga agtaactaag gaaggtacat ataaaaatga taattttaag 1080
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158 tggcaatttg gtttaacacc tcctccgtct gccagtttac aggacacata tagatttgtt 1260
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160 aataaatata ctttttggga ggttaactta aaggaaaagt tttctgcaga tctagatcag 1380
161 tttcctttgg gacgaaagtt tttattacaa tcaggcctta aagcaaagcc cagactaaaa 1440
162 cgttcggccc ctactacccg tgcaccatcc accaaacgca aaaggttaa aaaataa    1497
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VERIFICATION SUMMARY   DATE: 05/23/2006
PATENT APPLICATION: **US/10/579,111**   TIME: 14:26:09

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Output Set: **N:\CRF4\05232006\J579111.raw**

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